

AMENDMENT OF THE CLAIMS

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1. (Currently Amended) A flow management system, comprising: a first panel having a fluid pathway (for passing a first fluid), the first panel comprising a first compartment to receive a volume of the first fluid; a second panel having a fluid pathway (for passing a second fluid), the second panel comprising a second compartment to receive a volume of the second fluid; the first and second panels being aligned so that the first compartment overlays the second compartment; the second compartment communicating with at least a third channel; at least one support element defining a recess with at least one interior surface into which ~~and a first surface~~ and a second surface defining a gap; the first and second compartments are disposed within the gap so that the second compartment bears against ^{112-LAB} the second surface as the second fluid fills the second compartment and forces the first fluid out from the first compartment as the first compartment bears against ^{112-LAB} the first surface so that the first fluid passes out through the first (10)
channel as the second fluid passes in through the third channel without mixing of the first and second fluids. (13)

2. (Original) The flow management system of claim 1, wherein the first panel further comprises a third compartment to receive a volume of the first fluid.

3. (Original) The flow management system of claim 1, wherein the second panel further comprises a fourth compartment to receive a volume of the second fluid.

4. (Original) The flow management system of claim 1, wherein the panels are aligned by folding.

5. (Original) The flow management system of claim 1, wherein the panels are die cut and overlay one another.

6. (Original) The flow management system of claim 1, wherein the panels are flexible.
7. (Original) The flow management system of claim 1, wherein each panel has a pattern of seals.
8. (Original) The flow management system of claim 1, wherein the first fluid is an outgoing fluid.
9. (Original) The flow management system of claim 1, wherein the second fluid is an in-going fluid.
10. (Currently Amended) A flow management system, comprising: a first panel having a fluid pathway (for passing a first fluid) the first panel comprising a first compartment (to receive a volume of the first fluid) the first compartment communicating with first and second channels; and a second panel having a fluid pathway (for passing a second fluid) the second panel comprising a second compartment (to receive a volume of the second fluid) the second compartment communicating with third and fourth channels, the panels being aligned so that the first compartment overlays the second compartment, the first channel overlays the third channel, and the second channel overlays the fourth channel; a support to hold said first compartment against said second compartment so that the first fluid passes out through the first channel as the second fluid passes in through the third channel without mixing of the first and second fluids as a result of said second compartment expanding against said first compartment.
- 11-12. (Canceled).
13. (Original) The flow management system of claim 10, wherein the first panel further comprises a third compartment to receive a volume of the first fluid.

14. (Original) The flow management system of claim 10, wherein the second panel further comprises a fourth compartment to receive a volume of the second fluid.

15. (Currently Amended) The flow management system of claim 10, wherein the panels define a single folded element joined at a line of folding ~~are aligned by folding.~~

16. (Currently Amended) The flow management system of claim 10, wherein the panels are formed of two parallel sheets ~~are die cut and overlay one another.~~

17. (Original) The flow management system of claim 10, wherein the panels are flexible.

18. (Original) The flow management system of claim 10, wherein each panel has a pattern of seals.

19. (Original) The flow management system of claim 10, wherein the first fluid is an outgoing fluid.

20. (Original) The flow management system of claim 10, wherein the second fluid is an in-going fluid.

21. (Currently Amended) A flow management system, comprising: a first panel (1) having a fluid pathway (for passing a first fluid) the first panel comprising a first compartment (to receive a volume of the first fluid) the first compartment communicating with first and second channels; a second panel having a fluid pathway (for passing a second fluid) the second panel comprising a second compartment (to receive a volume of the second fluid) the second compartment communicating with third and fourth channels, the second panel comprising a second compartment to receive a volume of the second fluid, the second compartment ← ? communicating with third and fourth channels, the panels being aligned so that the first compartment overlays the second compartment, a support to hold said first compartment against (9)

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Is it a 1st
2nd comp
or 3rd?

said second compartment so that the first fluid passes out through the first channel as the second (14)
fluid passes in through the third channel without mixing of the first and second fluids as a result
of said second compartment expanding against said first compartment; the panels being aligned
so that the first compartment overlays the second compartment, the first channel overlays the (13)
third channel, and the second channel overlays the fourth channel; and a releasable clamp that
bears against the first channel and the third channel to close the first and third channels. (15)

a 22. (Original) The flow management system of claim 21, wherein the releasable
clamp is a solenoid clamp.

23. (Original) The flow management system of claim 21, wherein the releasable
clamp is a spring loaded clamp.

24. (Original) The flow management system of claim 21, wherein the first fluid from
the first compartment is displaced as the second fluid fills the second compartment.

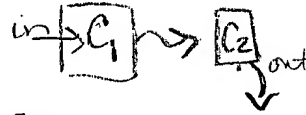
25. (Original) The flow management system of claim 21, further comprising a first
surface and a second surface defining a gap, the first and second compartments disposed within
the gap so that the second compartment bears against the second surface as the second fluid fills
the second compartment and forces the first fluid out from the first compartment.

26-32. (Canceled)

33. (New) A flow management system, comprising:
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first and second fluid separate compartments flexible fluid chambers with respective
inner compartments each with an inlet and an outlet;

a support to hold said first and second flow compartments against each other while
allowing them to expand by filling with fluid;

said support having actuators configured to selectively seal said respective inlets and outlets such that fluid fills said first compartment and is forced out of said second fluid compartment as said first fluid compartment fills and expands against said second during a first time and such that fluid fills said second compartment and is forced out said first fluid compartment as said second fluid compartment fills and expands against said first during a second time.



34. (New) A flow management system as in claim 33, wherein said first compartment inlet and said second compartment outlet are held in an overlapping arrangement such that both may be closed simultaneously with a first of said actuators.

35. (New) A flow management system as in claim 34, wherein said second compartment inlet and said first compartment outlet are held in an overlapping arrangement such that both may be closed simultaneously with a second of said actuators.